

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Canceled)

2. (Currently amended) A system as defined in Claim 4-5 which includes selectively diverting said panels into segregated receiving stations based on a common grade of acceptability.

3. – 4. (Canceled)

5. (Currently amended) ~~A system as defined in Claim 4 wherein~~ An inspection system for automatically detecting and classifying manufacturing defects in decorative wood panels following assembly of a decorative wood laminate, having a decorative wood facing, to a core or blank, said decorative wood facing having desirable areas of natural wood shading and said system using a photographic image of said panel as the basis for detecting and classifying said defects, which system comprises:

creating multiple sets of computer driven recipes corresponding to multiple decorative wood panel types, each computer drive recipe utilizing detectors and classifiers specifically created from images of defects of varying types and degrees exhibited by sample decorative wood panels of a corresponding decorative wood panel type comparable to said decorative wood panels to be inspected;

providing a controller for instructing the system as to which decorative wood panel type is to be processed and accordingly the recipes to be applied to that wood panel type, the controller further ~~comprises~~ comprising the capability of examining the detectors and classifiers of the various recipes, determining similarities of wood type

defects of such various recipes as compared to a decorative wood panel type for which a recipe is not created, and selecting desired ones of said detectors and classifiers for custom creating a new recipe for said decorative wood type;

providing a work order form which identifies production criteria including a decorative wood panel type to be produced, such identification in the form of a bar code readable by the controller and transferable by the controller to the computer driven recipes for selection of the applicable recipe;

photographically scanning said decorative wood panels to be inspected following assembly and determining therefrom and with reference to the applied recipes the occurrence of defects and a defect value based on the size and shape of the defect;
and

assigning a grade of acceptability to such inspected panels based upon the defect value indicated.

6. (Canceled)

7. (Currently amended) A system as defined in claim ~~6~~8 wherein each defect is assigned a grade level having multiple levels of acceptability from best to poorest, and said system further including a step whereby assembled panels having multiple defects are assigned different grade levels and a final grade as determined by the defect receiving the poorest grade level.

8. (Currently amended) A system ~~as defined in claim 6~~ for detecting and classifying defects in decorative wood panels having decorative wood shading following assembly of decorative wood laminates to cores in the production of the panels, wherein each

decorative wood panel includes a decorative wood laminates at opposed sides of said decorative wood panels, said system comprising:

creating recipes having value identifiers or parameters using photographic images of sample decorative wood panels exhibiting different types of defects and different degrees of the defects within the different types of defects;

assigning different grade levels to the different value identifiers for determining acceptability of the panels as assembled and specifically determining as acceptable the natural wood shading of said panels, said assignment of grade levels applicable to the two sides independently;

photographically scanning, and both sides of the decorative wood panels following assembly thereof being photographically scanned and thereby producing dual images for each panel, said assignment of grade levels applicable to the two sides independently;

identifying defects and values of said defects determined by said recipes to first determine a type of defect and, second, to determine a degree of that defect;

classifying the panels as assembled into said grades of acceptability; and

providing for separation of the assembled panels by grade of acceptability.

9. (Original) A system as defined in claim 7 having multiple recipes for multiple types of decorative wood panels, and including a controller receiving instructions as to processing of different types of decorative wood panels and said controller instructing the system as to the recipe to be utilized.

10. – 16. (Canceled)